

In recognition of his long and distinguished service and his notable contributions to man's knowledge and understanding of the weather, a dinner was given Professor McAdie on June 11 by the Harvard visiting committee to Blue Hill Observatory, and a silver bowl was presented

to him and Mrs. McAdie as a token of the committee's affection. Professor and Mrs. McAdie will make their home at Hampton, Va.—(*Bulletin American Meteorological Society August-September, 1931, p. 158.*)

BIBLIOGRAPHY

C. FITZHUGH TALMAN, in charge of Library

RECENT ADDITIONS

The following have been selected from among the titles of books recently received as representing those most likely to be useful to Weather Bureau officials in their meteorological work and studies:

American geophysical union.

Twelfth annual meeting. Transactions. April 30 and May 1, 1931. Washington, D. C. Washington. 1931. 229 p. figs. 25 cm.

Beaugé,

Contribution à l'étude des relations de la météorologie et de l'océanographie. p. 1052-1063. figs. 27½ cm. (Bull. Soc. d'océan. de France. 11e année. 15 mars, 15 mai 1931.)

Crestani, Giuseppe.

Climatologia. Torino. 1931. xi, 359 p. figs. 27½ cm. (Trat. ital. d'igiene, dir. Oddo Casagrandi. Monografia 17a.)

Eredia, Filippo.

Cenni sulle condizioni termiche della regione italiana, nei riguardi dell'irrigazione. Roma. 1931. 12 p. fig. 25½ cm. (Estr.: Le irrig. in Italia. Pub. no. 8 del Serv. idrog. II ed.)

Froc, L.

History of the code of Zi-ka-wei. 4 p. chart (fold.) 31½ cm. (Report presented by Rev. F. L. Froc at conference of directors of meteorological stations of the Far East, held at Hong Kong at the end of April, 1930.)

Gherzi, E.

Winds and the upper air currents along the China coast and in the Yangtse valley. Shanghai. 1931. 2,240 p. plates. 31½ cm.

Gorton, A. F.

Significance of cyclical characteristics in long range weather forecasting. p. 10-11, 27. 26 cm. (Citrus leaves, Aug. 1931.)

[Great Britain.] Air ministry.

Manual of air pilotage. London. 1930. xviii, 248 p. illus. maps (fold.) 23 cm. (Air pub. 1234.)
Report of the R. 101 inquiry . . . London. 1931. 129 p. figs. maps (fold.) front. 24½ cm.

Gunness, C. I.

Meteorological records. A forty-year summary, 1889-1928. p. 209-226. 23 cm. (Mass. agr. exper. sta. Bull. no. 270. Dec. 1930.)

Kendrew, Wilfrid George.

Climate, a treatise on the principles of weather and climate. Oxford. 1930. x, 329 p. illus. plates. diags. 22½ cm.

Knowlton, H. E., & Dorsey, M. J.

Study of the hardness of the fruit buds of the peach. 28 p. illus. 23 cm. (Agr. exper. sta., coll. of agric. West Va. Univ. bull. 211. Dec., 1927.)

Mangin, Arthur.

L'air et le monde aérien. 3. éd., entièrement refondue d'après les travaux scientifiques les plus récents . . . Tours. 1877. 574 p. illus. plates. 24½ cm.

Montanari, D.

Sulla determinazione di correnti verticali per mezzo di palloni piloti. Roma. 1931. 10 p. figs. 24½ cm. (Estr.: L'Aerotecnica. v. 11, N. 3. Marzo 1931 IX.)

Monterin, Umberto.]

Ricerche sull'ablazione e sul deflusso glaciale nel versante meridionale del Monte Rosa. Roma. 1931. 75 p. figs. plate (fold.) 27 cm. (Uff. idrog. del Po. Pubbl. N. 10. Fasc. 6°.)

Petitjean, L.

Le temps et la prévision du temps en Algérie et au Sahara. Paris. 1930. 71 p. figs. maps (fold.) 24 cm. (1830-1930 coll. du cent. de l'Algérie. Études scient. Serv. mét. de l'Algérie.)

Richardson, Burt.

Evaporation as a function of insolation. p. 996-1019. 23 cm. (Amer. soc. civil engin. Trans. v. 95, 1931.)

Skeete, C. C.

West Indian hurricanes. p. 178-185, 206-210. figs. 28 cm. (Tropical agric., v. 8, no. 7-8, July-Aug. 1931.)

Terada, Torahiko, & Utigasaki, Tyokurô.

Physical investigations of conflagrations in Tokyo. p. 69-90. figs. 26½ cm. (Sci. papers Inst. phys. & chem. res. v. 16, Aug. 1931.)

Tutton, A. E. H.

High Alps; a natural history of ice and snow. London. [1931.] xvi, 319 p. figs. plates. 22½ cm.

Watanabe, M., & others.

Report on the cloud observations made at the Mera meteorological observatory, Mera, near Tokyo. April 1927 to March 1929. Tokyo. 1931. 50, 72 p. figs. plates. 31 cm.

SOLAR OBSERVATIONS

SOLAR RADIATION MEASUREMENTS DURING JULY, 1931

By HERBERT H. KIMBALL, Solar Radiation Investigations

For a description of instruments employed and their exposures, the reader is referred to the January, 1931, REVIEW, page 41.

Table 1 shows that solar radiation intensities averaged above the normal intensities for July at Madison, and close to the July normals at Washington and Lincoln.

Table 2 shows an excess in the total radiation received on a horizontal surface as compared with the normal amounts for July at Madison and Fresno, and a deficiency at all other stations for which normals have been computed.

Skylight polarization measurements obtained on 8 days at Madison, give a mean of 60 per cent with a maximum of 70 per cent on the 24th. At Washington, measurements obtained on 4 days give a mean of 53 per cent, with a maximum of 58 per cent on the 27th. These are close to the corresponding July averages for both stations.

TABLE 1.—Solar radiation intensities during July, 1931

[Gram-calories per minute per square centimeter of normal surface]

Washington, D. C.

Date	Sun's zenith distance											Local mean solar time
	8 a.m.	78.7°	75.7°	70.7°	60.0°	0.0°	60.0°	70.7°	75.7°	78.7°	Noon	
	75th mer. time	Air mass										
		A. M.						P. M.				
		e.	5.0	4.0	3.0	2.0	1.0	2.0	3.0	4.0	5.0	
	mm.	cal.	cal.	cal.	cal.	cal.	cal.	cal.	cal.	cal.	mm.	
July 8.....	17.37				0.72						18.59	
July 11.....	14.10			0.78	0.99	1.26					10.97	
July 14.....	19.23				0.82	1.14					20.57	
July 15.....	17.96				0.74						17.96	
July 22.....	13.61				1.09	1.32					13.13	
July 23.....	13.61			0.78	0.99	1.17					13.61	
July 25.....	13.13			0.76	0.98	1.25					8.81	
July 27.....	16.79		0.63	0.80	1.00	1.18					10.97	
July 28.....	18.59				0.82	1.14					14.60	
July 29.....	19.89				0.84	0.88					14.60	
Means.....		(0.63)	0.79	0.90	1.21							
Departures.....		-0.04	+0.02	±0.00	+0.02							

¹ Extrapolated.